

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 27-31, 34-45, and 48-52 are currently pending. Claims 32, 33, 46, and 47 have been canceled without prejudice; and Claims 27, 29, 34-36, 45, 51, and 52 have been amended by the present amendment. The changes to the claims are supported by the originally filed specification and do not add new matter.

In the outstanding Office Action, Claims 27-32, 34-35, 37-43, and 51 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,519,422 to Thoman et al. (hereinafter “the ‘422 patent”); Claims 27-31, 39-45, 49, and 51-52 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,956,057 to Childers et al. (hereinafter “the ‘057 patent”); and Claims 33, 36, 45-50, and 52 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘422 patent.

Applicants wish to thank the Examiner for the interview granted Applicants’ representatives on February 14, 2007, at which time the outstanding rejections of the claims under 35 U.S.C. § 103(a) were discussed. At the conclusion of the interview, the Examiner agreed that the cited references do not disclose that the corner portion of the recess portion of an ink cartridge is formed to have an acute angle.

Amended Claim 27 is directed to an ink cartridge that can be detachably attached to an inkjet printer, comprising: a holding portion formed over two adjacent faces of the ink cartridge. Further, Claim 27 has been amended to incorporate the limitations recited in Claims 32 and 33 and to clarify that the ink cartridge is attached or detached in a horizontal direction.¹ In particular, amended Claim 27 recites that one end of the holding portion is a corner portion of a recess portion provided on a front face of the ink cartridge, the corner

¹ For a non-limiting example, see specification, pg. 16, lines 22-24.

portion of the recess portion having an acute angle, and the ink cartridge being attached or detached in a horizontal direction. Accordingly, the changes to Claim 27 are supported by the originally filed specification and do not add new matter.

Applicants respectfully submit that the rejection of Claim 27 (and dependent Claims 28-32, 34, 35, and 37-43) as anticipated by the '422 patent is rendered moot by the present amendment to Claim 27. Furthermore, Applicants respectfully submit that the rejection of Claim 27 (and dependent Claims 28-31 and 39-44) as anticipated by the '057 patent are rendered moot by the present amendment to Claim 27. However, since Claim 27 has been amended to incorporate the limitations recited in Claim 33 and intervening Claim 32, Applicants will address the '422 patent cited in the rejection of Claim 33.

The '422 patent is directed to a method and device for preventing unintended use of print cartridges. In particular, the '422 patent discloses that the principle object of the invention is to provide a new and improved method for preventing insertion of a print cartridge into a printer carriage compartment for which it was not intended.² However, as acknowledged in the Office Action, the '422 patent does not disclose that the corner portion of a recess portion has an acute angle and the ink cartridge is attached or detached in a horizontal direction, as recited in amended Claim 27. Rather, the '422 patent discloses that a cartridge is attached or detached in a vertical direction.³ The '422 patent does not disclose the ink cartridge is attached or detached in a horizontal direction. Furthermore, the Examiner appears to assert that the limitation reciting the corner portion of a recess portion having an acute angle is obvious as a design choice, stating that:

... it would have been obvious to one having ordinary skill in the art at the time the invention was made to select changes in the surface of the ink cartridge with an acute angle or obtuse angle for the purpose of easily holding the ink cartridge by

² See '422 patent, column 1, lines 39-43.

³ See '422 patent, Figure 8A.

user, since it is a mechanical design expedient for an engineer depending upon a particular environment and the application in which the inkjet cartridge is to be used.⁴

Applicants respectfully traverse this assertion of obviousness because the claimed corner portion having an acute angle is functionally significant. For a non-limiting example, Applicants' specification discloses:

[a]ttachability/detachability of a cartridge is also related to thinning of the cartridge. For example, when [a] holding style of the cartridge is restricted due to thinning thereof, the attachability/detachability of the cartridge in a horizontal direction or in a vertical direction may deteriorate due to the holding style of the cartridge.⁵

[I]t is an object of the present invention...to provide an ink cartridge that is easily handled and easily attached to/detached from an apparatus without enlarging the apparatus width.⁶

Accordingly, Applicants respectfully submit that a *prima facie* case of obviousness has not been established and the rejection of amended Claim 27 should be withdrawn. However, if the Examiner disagrees, Applicants respectfully request that the Examiner provide a reference that teaches that modifying the corner portion to have an acute angle is a well known design choice in this art.

In the outstanding Office Action, the stated motivation for modifying the teachings of the '422 patent is that an acute or obtuse angle "is a mechanical design expedient for an engineer depending upon a particular environment and the applications in which the ink jet cartridge is to be used." Furthermore, Applicants respectfully submit that whether it would have been possible to modify the '422 patent to include all of the features of amended Claim 27 is not the proper standard for determining obviousness. Rather, as stated in M.P.E.P. § 2143, the standard is as follows:

⁴ See Office Action dated January 10, 2007, page 6, paragraph 1.

⁵ See specification, page 4, lines 2-7.

⁶ See specification, page 4, lines 8-12.

[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination in the reasonable expectation of success must both be found in the prior art, not in applicants' disclosure.
In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).
(Emphasis added).

Thus, as the outstanding Office Action has relied on Applicants' disclosure and pointed to nothing in the reference or anywhere in the record indicating a motivation to combine the '422 patent with the "obvious" features, as stated by the Examiner, in a manner such that the invention of amended Claim 27 would be the result, Applicants respectfully submit that the outstanding Office Action has not satisfied the burden under M.P.E.P. § 2143 for a *prima facie* case of obviousness.

Amended Claim 36 depends from Claim 27. Claim 36 further states that an angle formed by a lower end portion of the recess portion and the front face of the ink cartridge is an obtuse angle. Moreover, Claim 36 was rejected on the basis of obviousness as a design choice, as discussed above with regard to Claim 27. However, for the reasons stated above for the patentability of Claim 27, Applicants respectfully submit that a *prima facie* case of obviousness has not been established and the rejection of Claim 36 should be withdrawn. Furthermore, Claim 27, to which Claim 36 depends, now recites the limitations of cancelled Claim 33. During the interview granted Applicants' representatives, the Examiner indicated that such an amendment would overcome the rejection of Claim 36.

Applicants respectfully submit that the rejection of Claim 45 (and dependent Claim 49) as anticipated by the '057 patent is rendered moot by the present amendment to

Claim 45. Claim 45 has been amended to incorporate the limitations recited in Claim 47 and intervening Claim 46, and now recites limitations analogous to the limitations recited in Claim 27. Accordingly, for the reasons stated above for the patentability of Claim 27, Applicants respectfully submit that a *prima facie* case of obviousness has not been established and the rejection of amended Claim 45 should be withdrawn.

Amended Claim 51 recites limitations analogous to the limitations recited in Claim 27. Moreover, Claim 51 has been amended in a manner analogous to the amendments to Claim 27. Accordingly, for the reasons stated above for the patentability of Claim 27, Applicants respectfully submit that a *prima facie* case of obviousness has not been established and the rejection of amended Claim 51 should be withdrawn.

Amended Claim 52 recites limitations analogous to the limitations recited in Claim 45. Moreover, Claim 52 has been amended in a manner analogous to the amendments to Claim 45. Accordingly, for the reasons stated above for the patentability of Claim 45, Applicants respectfully submit that a *prima facie* case of obviousness has not been established and the rejection of amended Claim 52 should be withdrawn.

Thus, it is respectfully submitted that independent Claims 27, 45, 51, and 52 (and all associated dependent claims) patentably define over the '422 and '057 patents.

Consequently, in view of the present amendments and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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